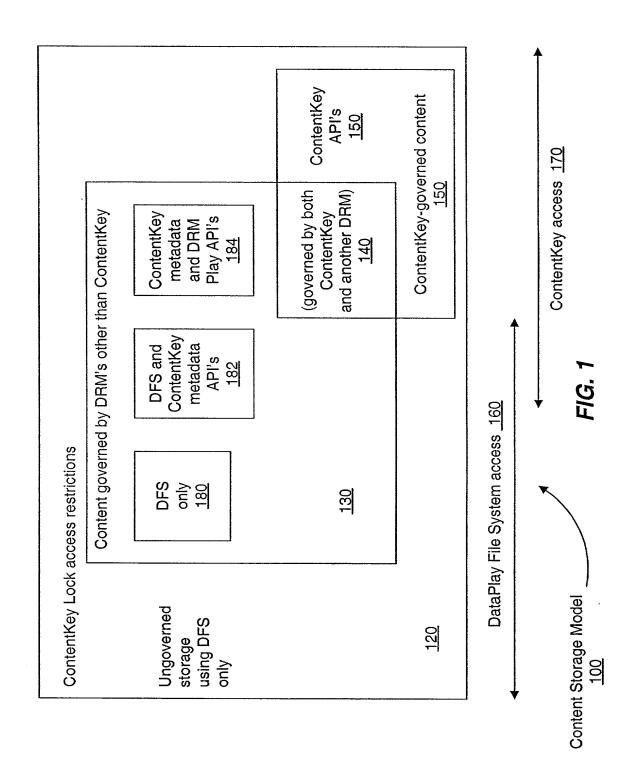
Attorney Docket No.: M-12042 US

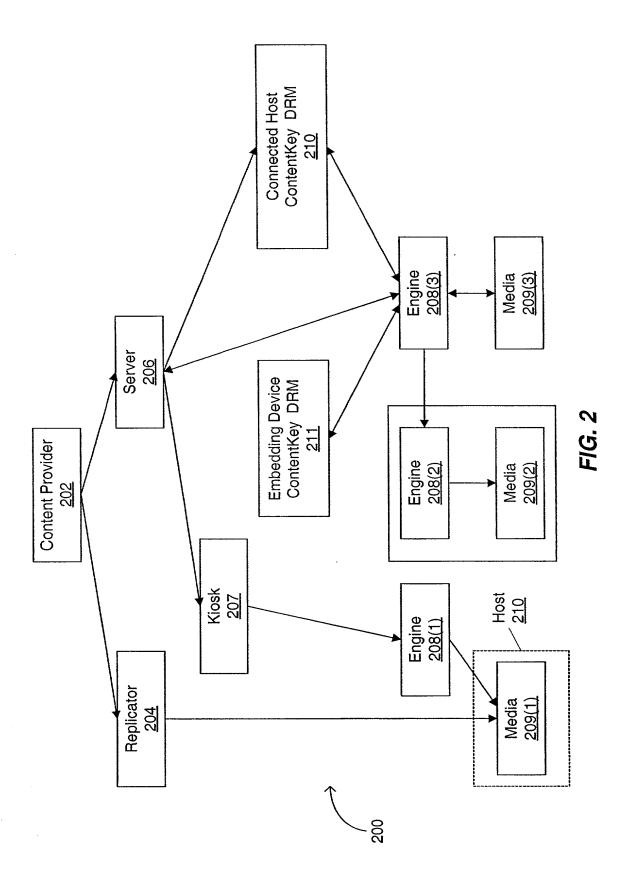
First Inventor:

Lane W. Lee

Title:



Title:



Title:

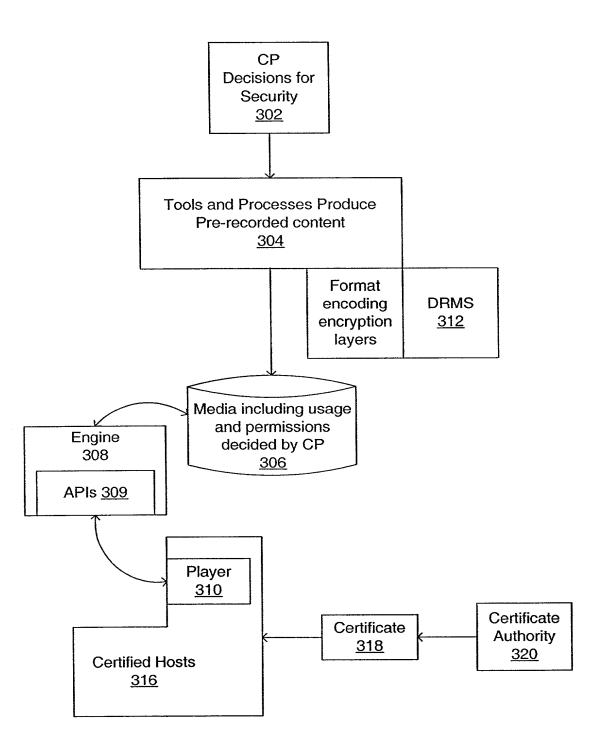
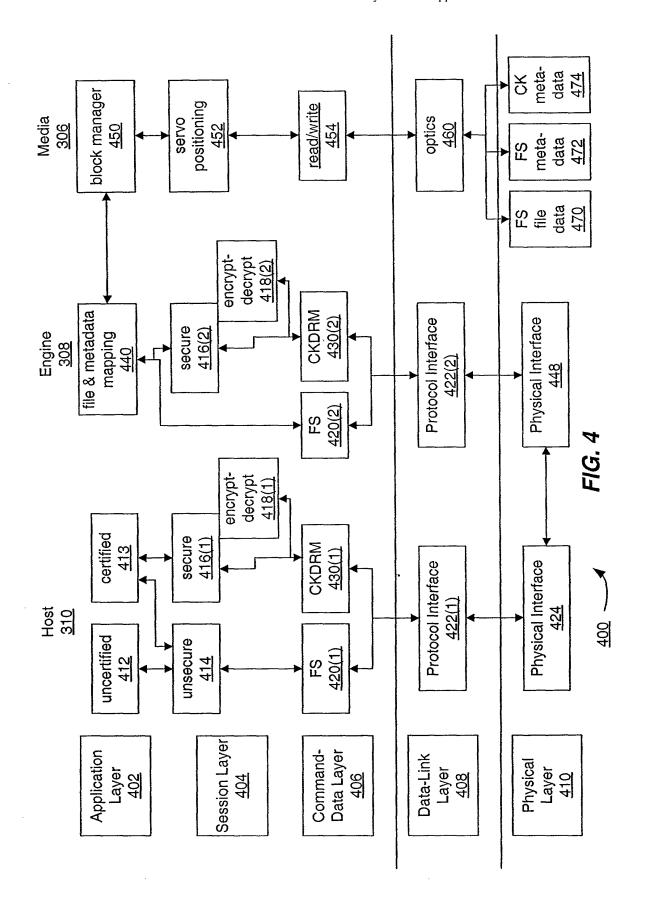


FIG. 3



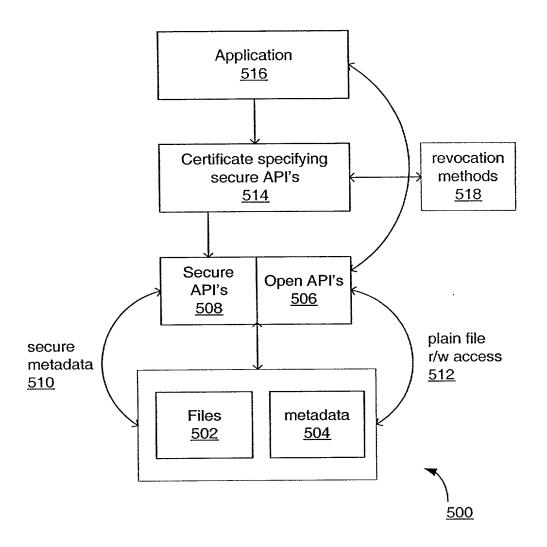
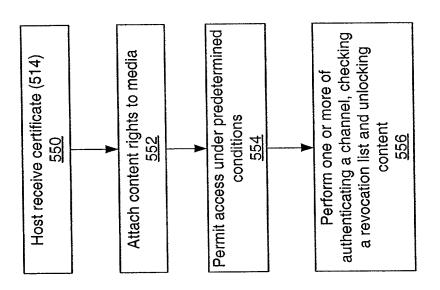
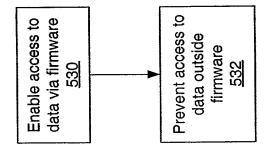


FIG. 5A

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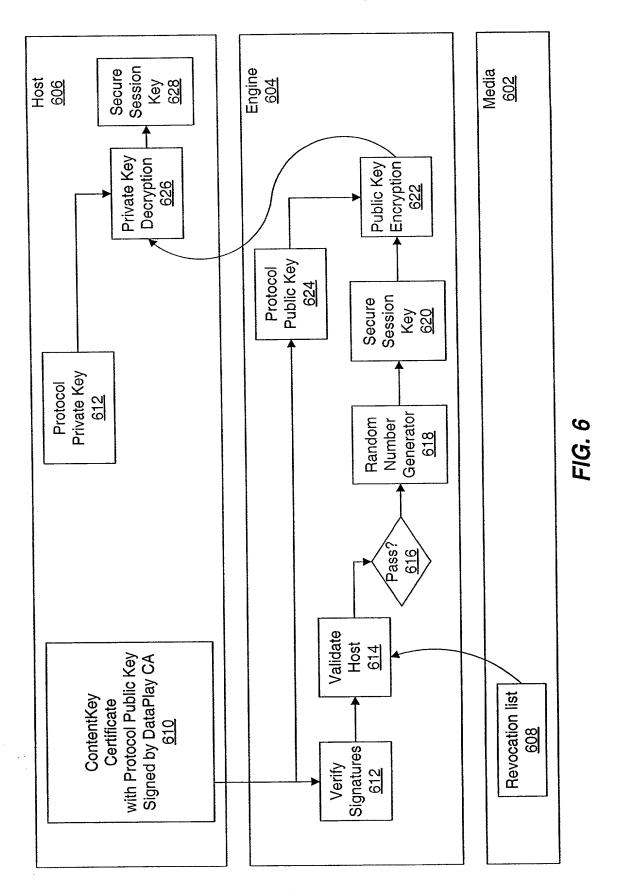
Title:





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Title:



Title:

Lane W. Lee

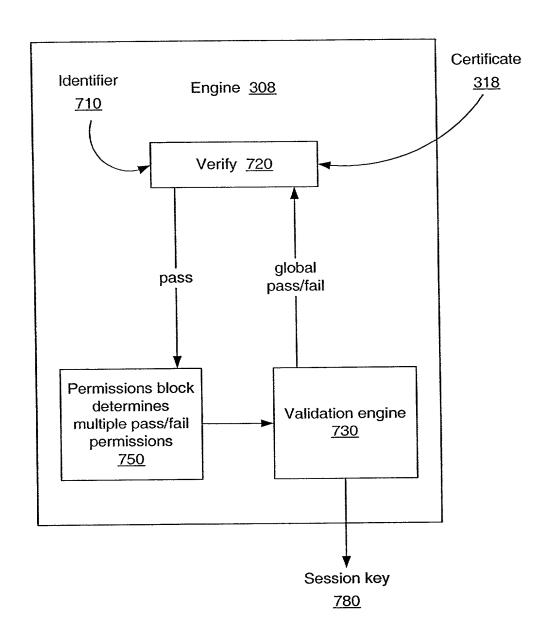


FIG. 7A

Use identifier to qualify

destination

704

Receive certificate from destination

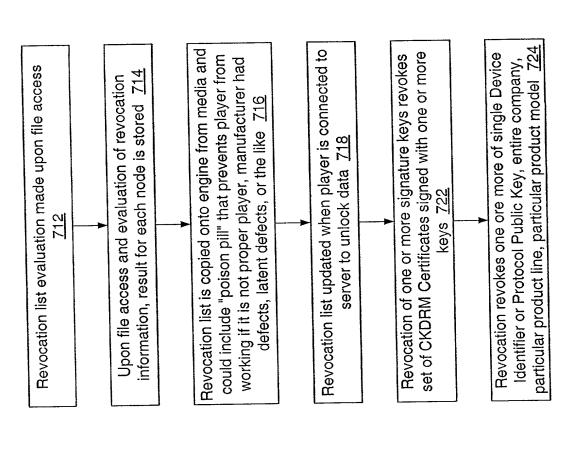
702

Transmit session key

907

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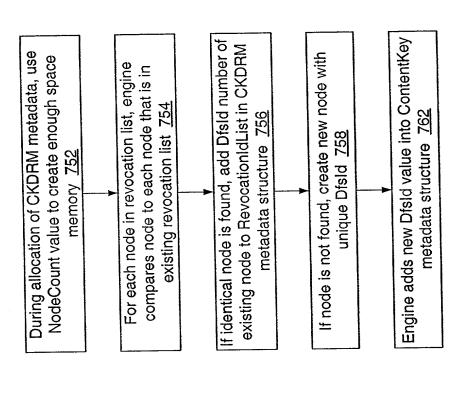
Title:



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Title:

A Revocation System and Apparatus for Secure Content



Revoke host if any revocation evaluated against contents of Combine results from clause Evaluate data in clause node according to function results nodes according to clause CKDRM certificate 732 node in revocation list of true or false when evaluates to true rules 734 736

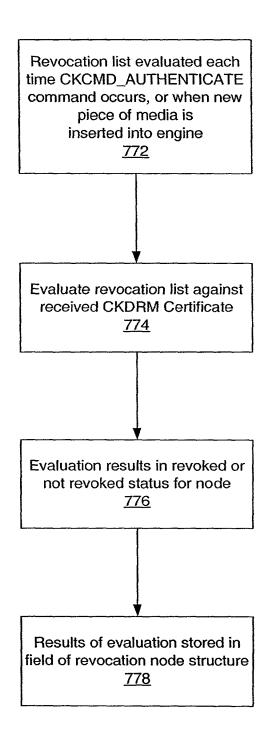


FIG. 7F

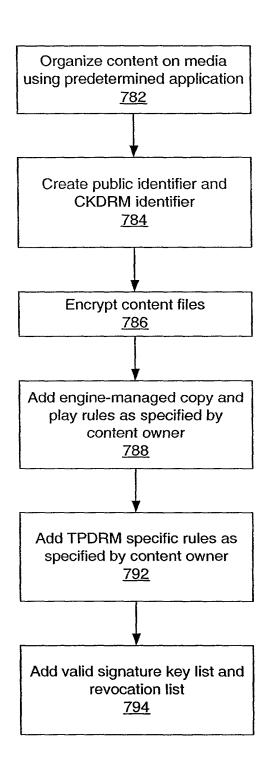


FIG. 7G

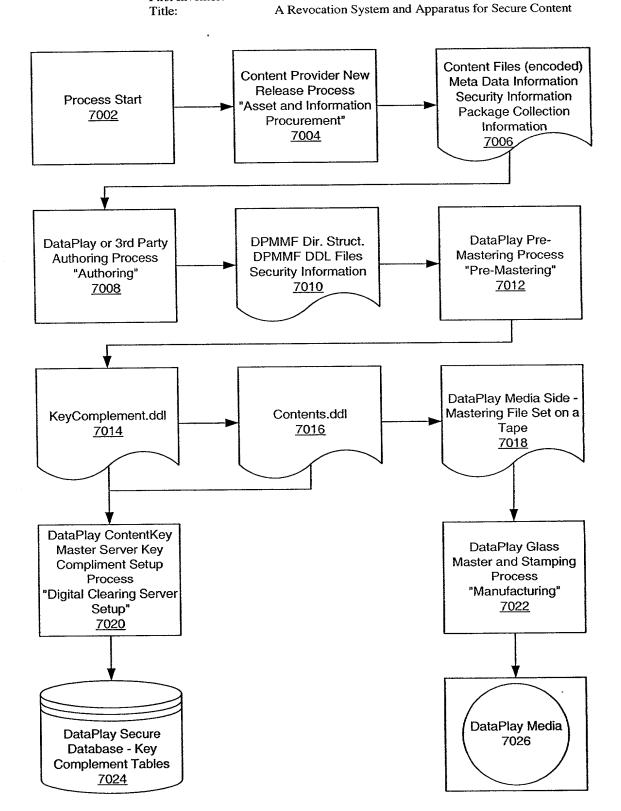


FIG. 7H

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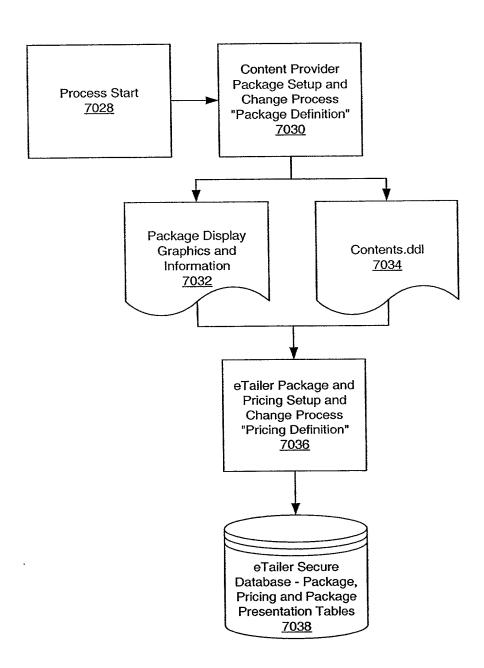


FIG. 71

Lane W. Lee

Title:

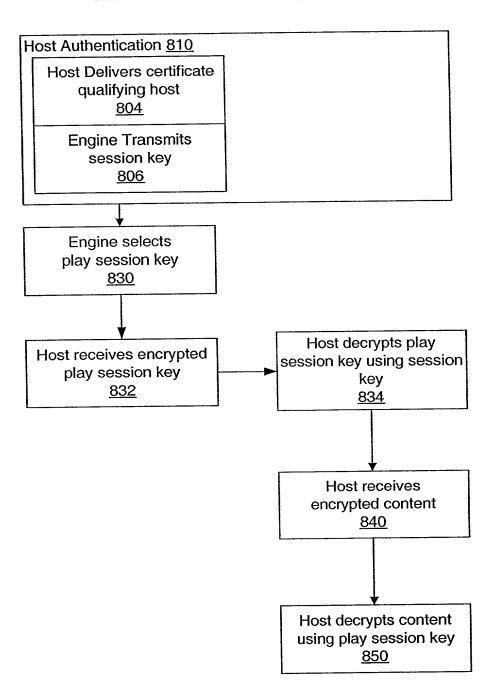


FIG. 8

Title:

A Revocation System and Apparatus for Secure Content

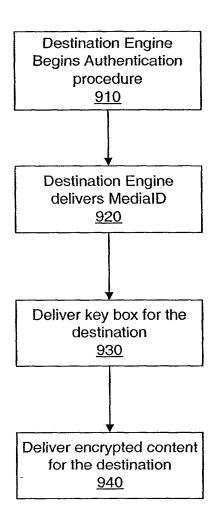


FIG. 9

Title:

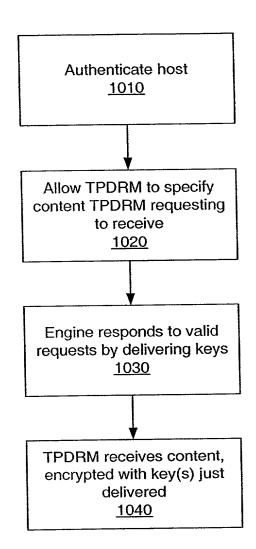


FIG. 10

Attorney Docket No.: M-12042 US Lane W. Lee First Inventor:

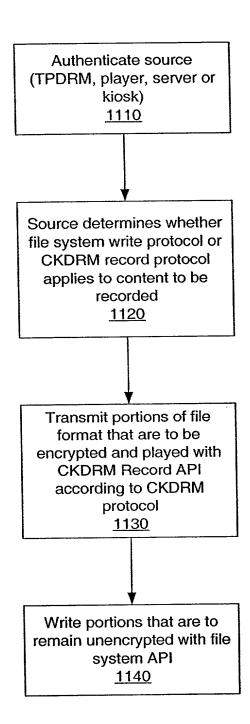


FIG. 11

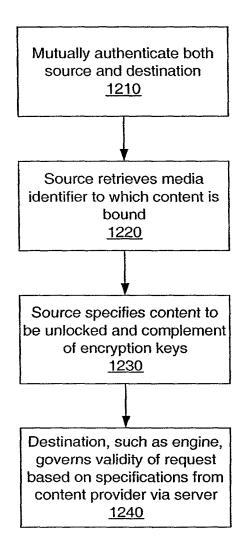
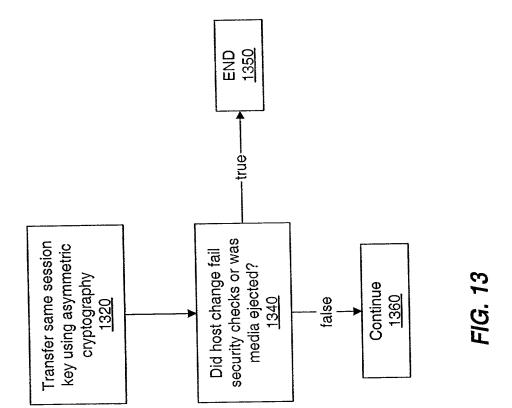


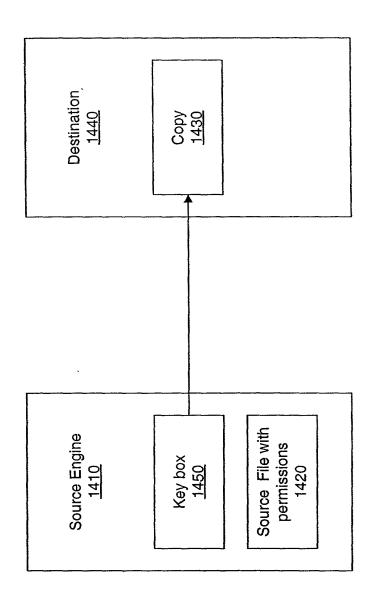
FIG. 12

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Title: A Revocation



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Title:



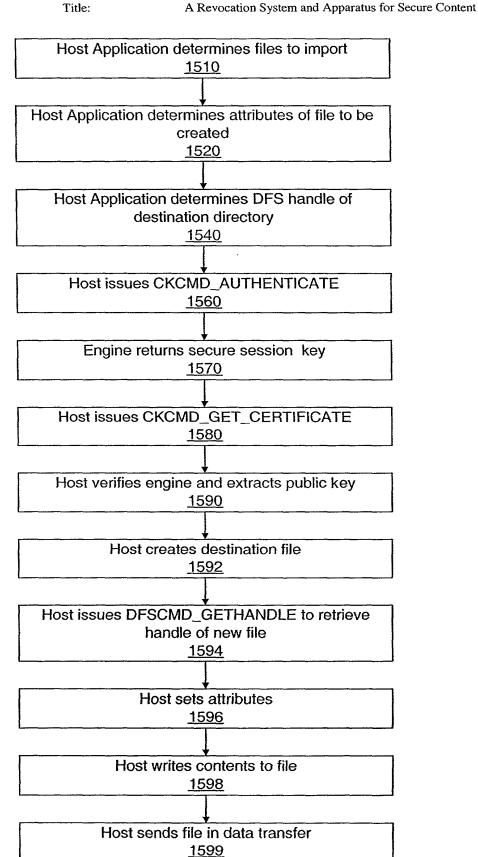


FIG. 15

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First Inventor:

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Title:

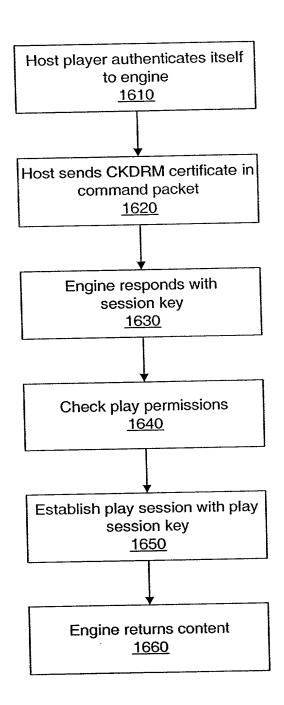


FIG. 16

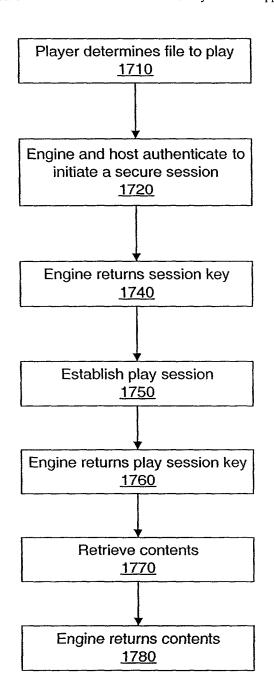


FIG. 17

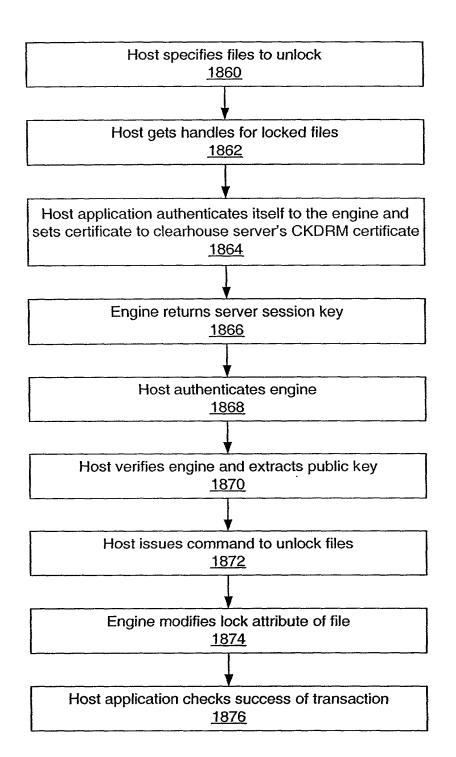


FIG. 18

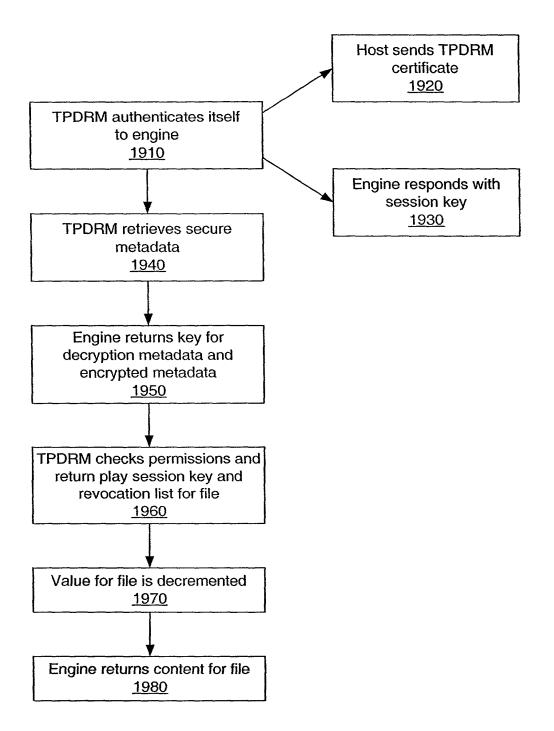


FIG. 19

Title:

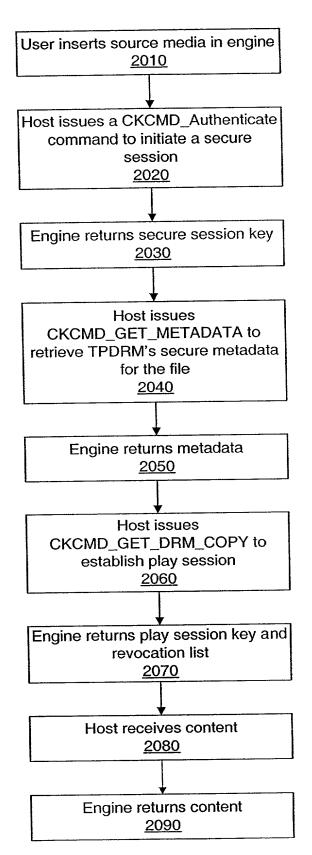


FIG. 20

Title: A Revocation System and Apparatus for Secure Content

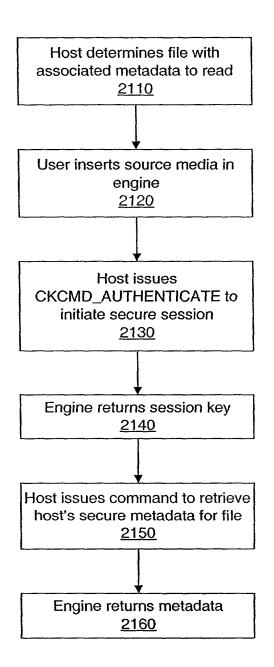


FIG. 21

Title: A Revocation System and Apparatus for Secure Content

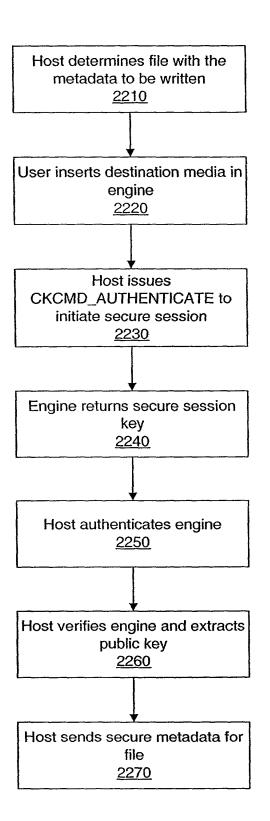


FIG. 22A

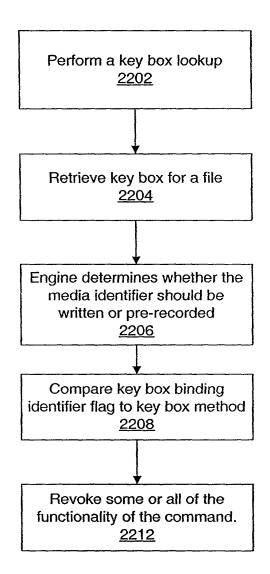


FIG. 22B

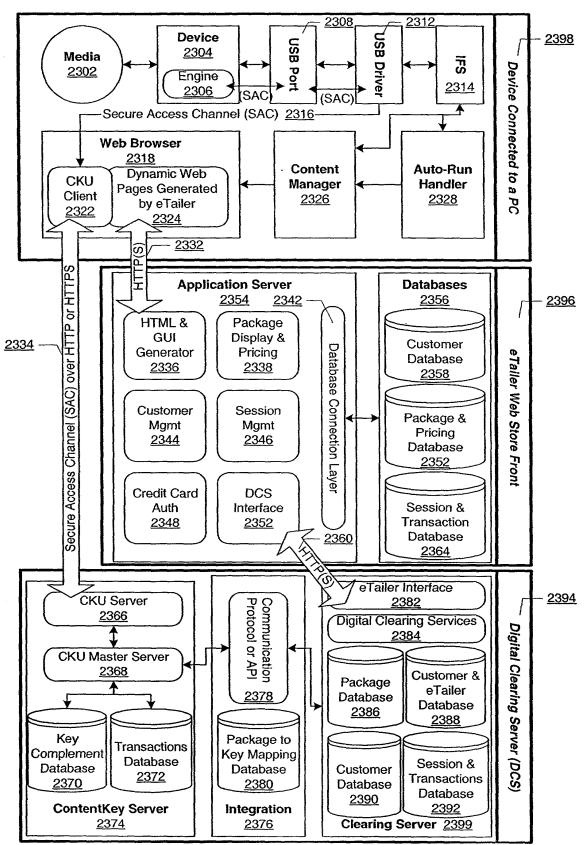


FIG. 23A

Title: A Revocation System and Apparatus for Secure Content

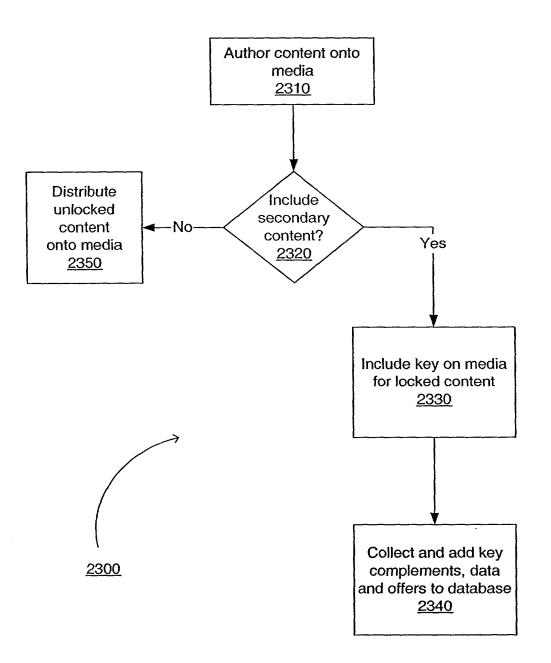


FIG. 23B

A COMPANIA DE REPUBBLICA DE LA COMPANIA DE REPUBBLICA DE LA COMPANIA DE LA COMPANIA DE LA COMPANIA DE LA COMPA

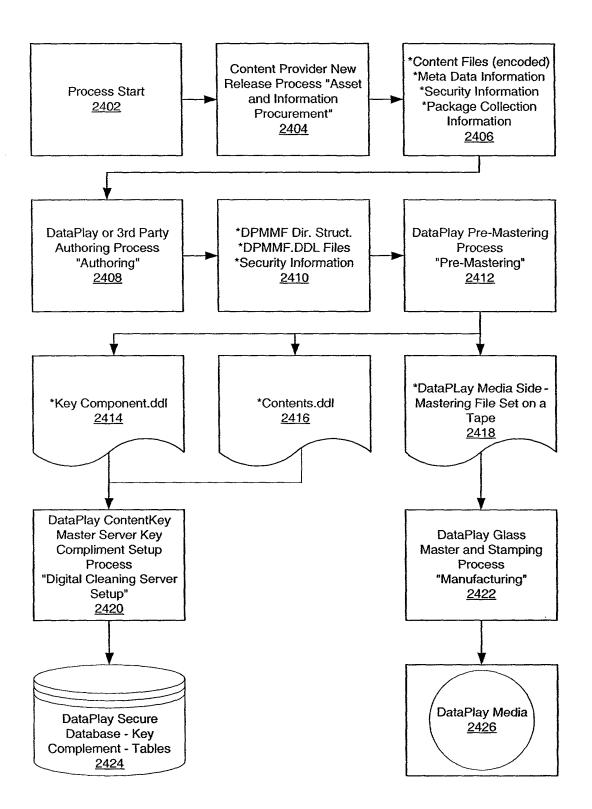


FIG. 24

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A Revocation System and Apparatus for Secure Content

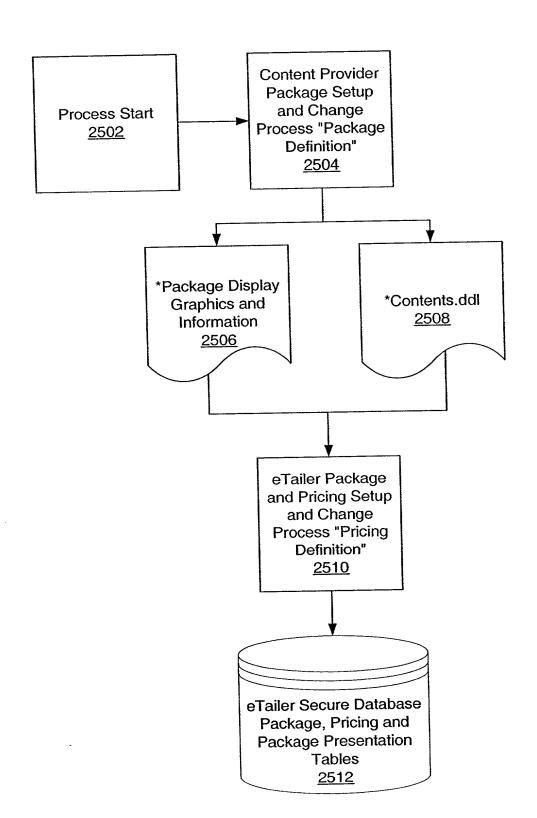


FIG. 25

Title: A Revocation System and Apparatus for Secure Content

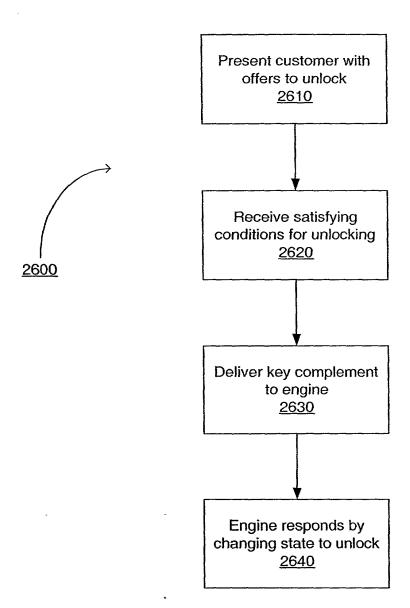
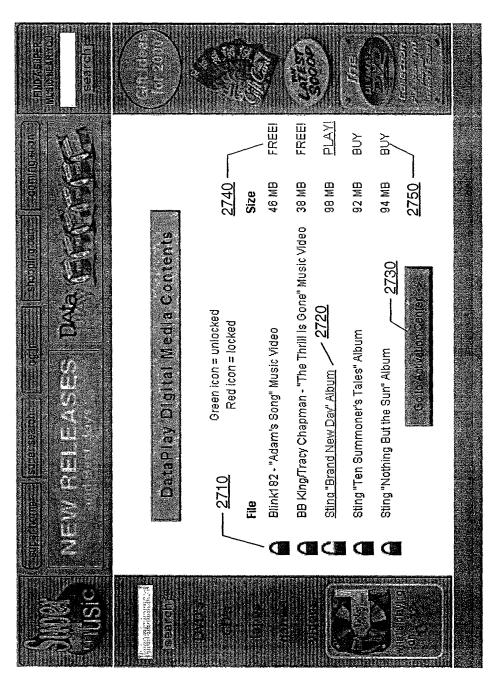


FIG. 26

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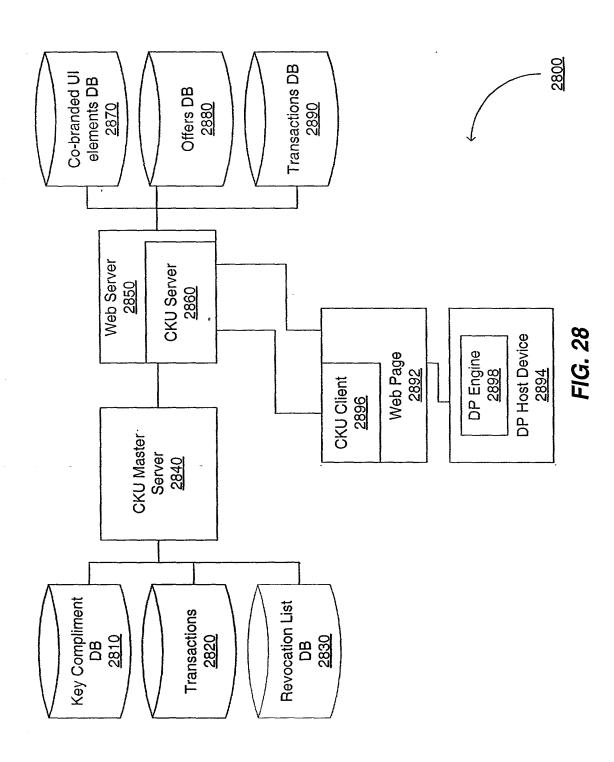
Title:



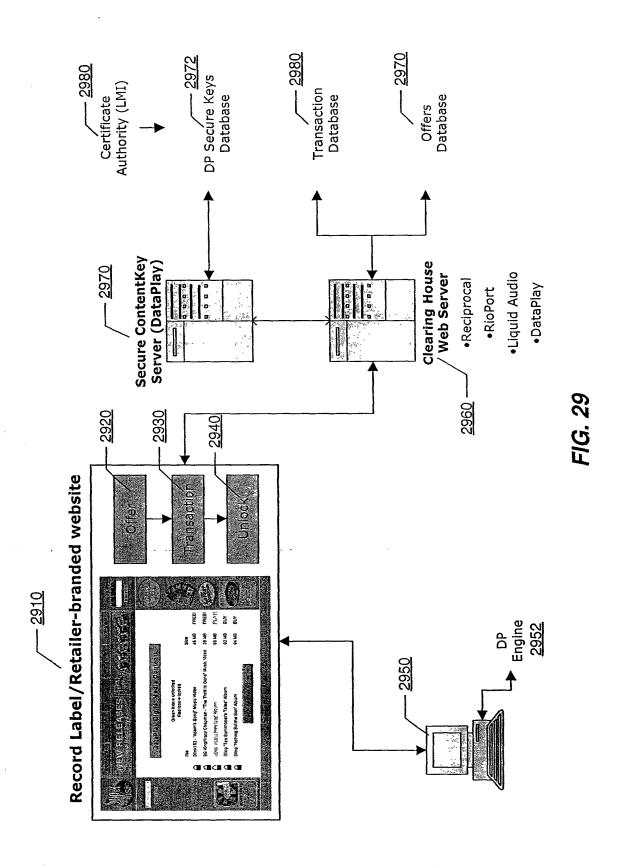
Attorney Docket No.: M-12042 US First Inventor:

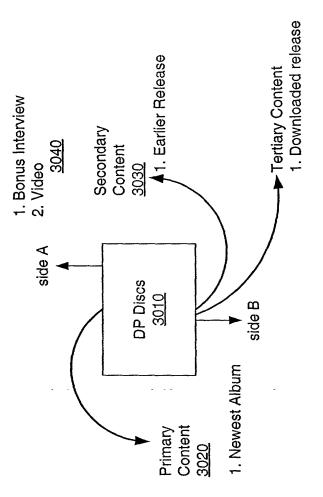
Lane W. Lee

Title:

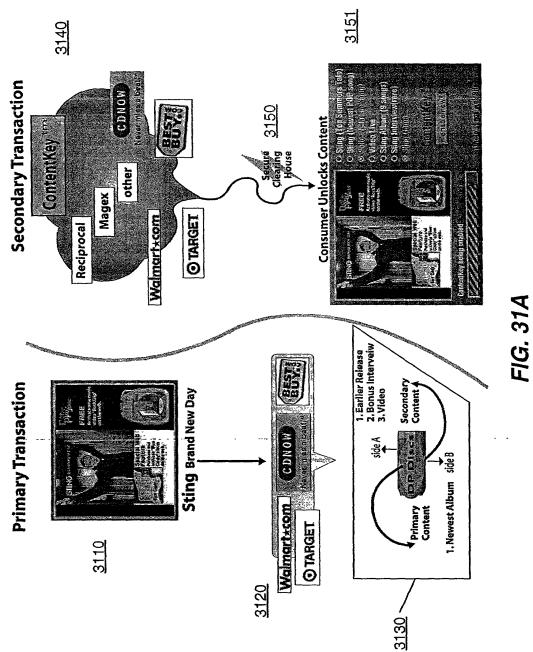


Title:





7G. 30



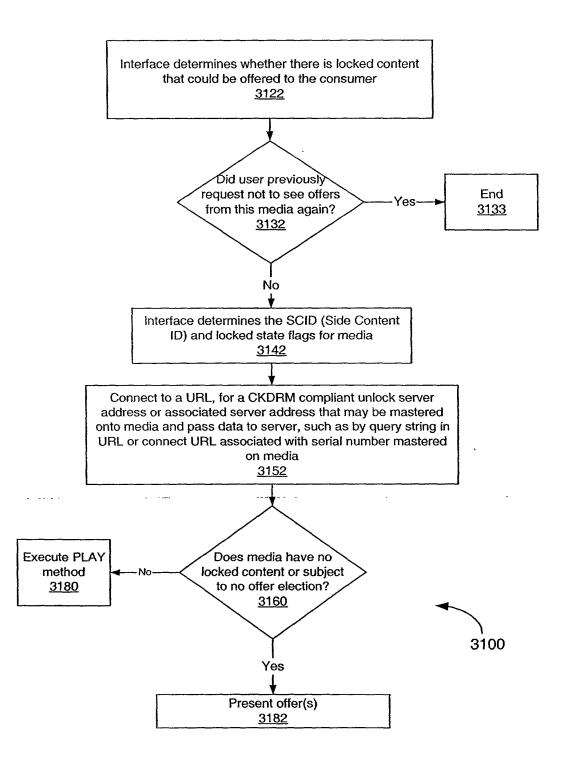


FIG. 31B

Title:

A Revocation System and Apparatus for Secure Content

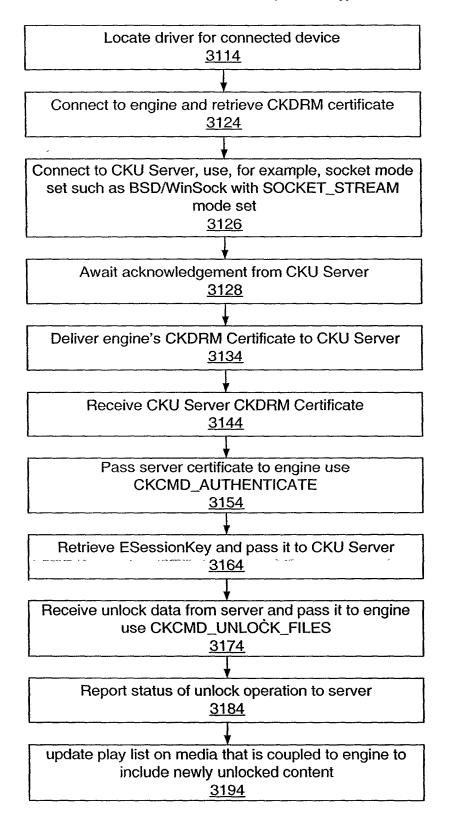


FIG. 31C

Attorney Docket No.: M-12042 US First Inventor: Lane W. Lee Title: A Revocation System and Apparatus for Secure Content CKU Client that unlock has CKU Server disconnects financial transaction after receiving indication from unlock status from Clien completed successfully Web server completes CKU Server receives Transaction status is marked in Transaction from Client 3244 Database 3242 3240 encrypts Key Complements data and transmits to Client Complements that provide MAC for data portion 3236 CKU Server transmits data CKCMD_UNLOCK_FILES random key to be used to Provides that CKU Server CKU Server decrypts Key Unlock Key using engine using Unlock Key 3230 unlock capability 3228 **CKU Server constructs CKU Server constructs** CKU Server generates **CKU Server encrypts** Complements 3226 public key 3232 re-encrypt Key to Client 3238 3234 CKU Server passes Server CKU Server acknowledges CKDRMCertificate to Client hat may be encrypted with Session Key using Server **CKU Server receives Ke**) CKU Server disconnects from CKU Master Server ESessionKey from Client Complements from CKU Master Server, In one Server public key 3214 CKU Server public key embodiment keys are receipt to CKU Master **CKU Server receives** encrypted using CKU CKU Server decrypts Private Key 3216 3224 3218 Database using SessionID as SCID and DFS file handles to CKU Server connects to CKU acknowledgement from CKU engine's CKDRM Certificate list of DFS file handles to be CKDRM retrieves SCID and CKDRM Certificate, engine CKDRM Certificate, media CKU Server acknowledges unlocked from Transaction CKU Server passes Server and Session ID from client Master CKU Server 3212 **CKU Server receives an CKU Server awaits the** client connection 3202 Master Server 3208 Master Server 3210 index or key 3206 connection 3204

Title: A Revocation System and Apparatus for Secure Content

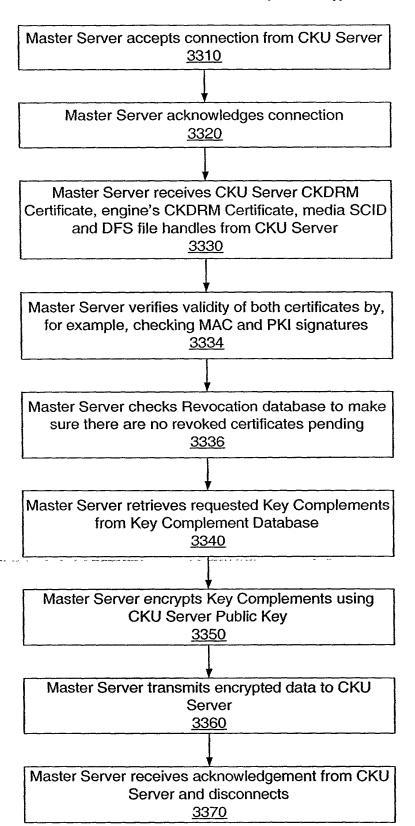


FIG. 33

Title: A Revocation System and Apparatus for Secure Content Client accesses formatted URL, such as URL on media disk or URL associated with serial number on media disk or other source <u>3410</u> Client presents query string containing SCID and locked content status 3420 Web server constructs page to present offers to consumer using data from Offers and UI Elements databases 3430 Web server delivers "Unlocking in Progress" page to client 3440 Web server generates unique SessionID that is used later to commit transaction after unlock process is verified 3450 Web page embeds CKU Client object and contains client-side script that tells CKU Client to begin unlock process 3454 Web server stores the SCID and list of DFS File Handles indexed by SessionID in Transaction Database for later use by CKU Server object 3456

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First Inventor:

FIG. 34

First Inventor: Lane W. Lee Title: A Revocation System and Apparatus for Secure Content acknowledgment or retransmit message 3576 Transaction Database and of transaction to web page by sending event to event handler in web page 3590 **CKU Client reports status** CKU Server sends unlock CKU Server marks status CKU Client responds with error or unlock complete message to CKU Server Web page displays transaction status 3592 message to CKU Client CKU Client sends either CKU Server generates of unlock operation in disconnects from CKU 3572 Client 3580 random key CKU Server responds with retransmit message 3568 CKU Client responds with either acknowledgment or complements with private authentication command CKU Client using authenticate message CKU Server transmits CKDRM Certificate to **CKU Client constructs** packet to send through encrypted session key driver to engine 3562 Engine responds with Server in session key CKU Server decrypts session key and key acknowledgment or **CKU Client passes** session key to CKU retransmit 3560 message 3566 either server 3570 3558 **ķ** Server responds with error receive error, CKU Server If certificates are invalid or associated database and CKU Server receives Key acknowledges receipt of pertificates in Revocation responds with retransmit checks for presence of revoked, CKU Master complements to CKU certificates are valid encrypts them 3550 **CKU Master Server CKU Master Server** CKU Master Server complements from If data mismatch or message 3548 message <u>3556</u> Complements, retrieves key transmits key Server 3552 data 3554 database 3546 transmits it to CKU Master acknowledgment or, if any problems occur retransmit CKU Server connects to corresponding record in accepts connection and CKU Server assembles CKDRM certificates of both engine and CKU Fransaction Database message packet to CKU Master Server CKU Server locates CKU Master Server listening port 3536 CKU Master Server **CKU Master Server** validates or denies request keys and acknowledgment message <u>3538</u> responds with Server 3544 packet 3542 server 3540 replies with 3524 instantiated and initialized with Session ID, SCID and incoming connection from client and acknowledges CKU Server responds with either an acknowledgment or retransmit message Certificate and SessionID media with content to be CKU Client locates driver for device that contains engine's CK Certificate Deliver a page to client IP: PORT address for **CKU Client transmits CKU Client object is** CKU Server accepts to CKU Server 3520 **CKU Client obtains** CKU Server 3510 CKU Client makes connection 3516 engine's CKDRM acknowledgment message 3518 connection with offered 3512

3514

3522

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Title: A Revocation System and Apparatus for Secure Content

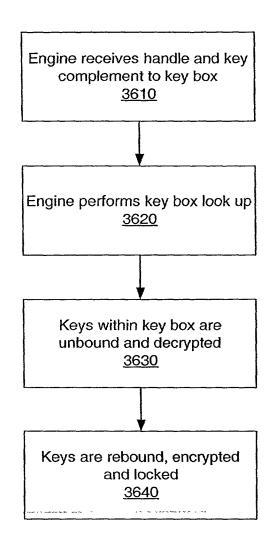
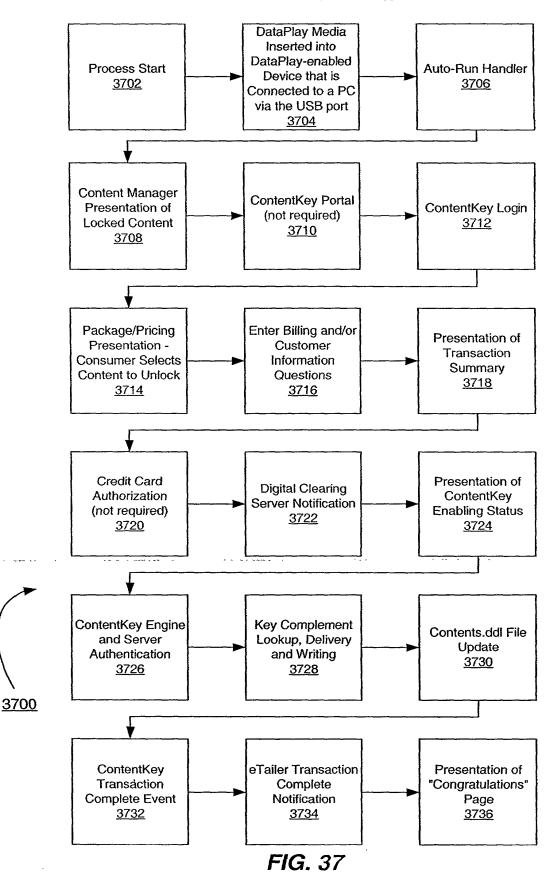


FIG. 36

Title: A Revocation System and Apparatus for Secure Content



Title: A Revocation System and Apparatus for Secure Content DCS Order Mgmt Server inserts records DCS_STAGE table with or without a Media ID 3802 DCS Order Mgmt Serve generates a web page with a CKU Client instantiated with a Transaction ID CKU Client obtains the Engine's CKDRM Certificate 3806 CKU Client obtains the unique Media ID (if this is not already established the engine will do so) 3808 CKU Client obtains the Server's ContentKey Certificate 3810 CKU Client obtains the ESessionKey from the Engine using the CKU Server's CKDRM Certificate 3812 CKU Client makes final unlock request for validating and/or updating the DCS_STAGE table with the Media ID, authenticating the Engine, obtaining the File Handle/Key Complement/Version list and Wrapping the File Set 3814 CKU Client sends the wrapped file set to the Engine so the Engine can unlock the content <u>3816</u> CKU Client sends the final transaction status message to the server and displays a "Trx Complete" message to customer/user 3818 DCS Order Mgmt Server receives the status complete notice, and deletes DCS_STAGE records for that transaction and updates transaction 3820

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First Inventor:

FIG. 38

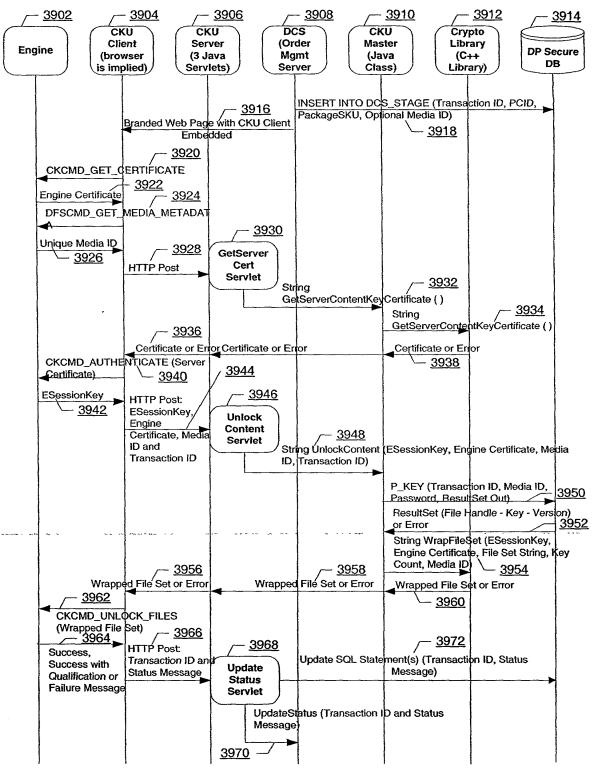


FIG. 39

Title: A Revocation System and Apparatus for Secure Content Receive media containing locked content 4002 Auto-Run Handler (or Content Manager) requests and obtains a Contents.ddl file Auto-Run Handler (or Content Manager) parses the Contents.ddl fie to obtain the PackageCollectionID, PackageCollectionSKU, UnlockURL, Primary PackageSKU List + Business Entity ID, and a list of previously unlocked PackageSKU's 4006 Auto-Run Handler (or Content Manager) appends the data to the URL and opens the default browser which will display a web page created by the eTailer <u>4008</u> ETailer presents user/customer with a series of pages to process the eCommerce transaction <u>4010</u> After a user/customer completes the transaction (e.g. clicking button and prompting eTailer) thereby requesting eTailer to notify the DCS of the ContentKey Unlock Transaction, eTailer passes the DCS the PCID, and a list of PackageSKU's that are to be unlocked 4012 The DCS Order Mgmt component generates a unique Transaction ID and will insert one record for each Package purchased. At this point, the Media ID is not know so it will contain a null value. 4014 The DCS replies to the eTailer with a failure message or a URL that the user/ customer uses to unlock content. The Unlock URL contains the Transaction ID that was generated by the DCS. 4016 The eTailer generates a final confirmation and unlock instructions page that contains the Unlock URL. 4018

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First Inventor:

FIG. 40

First Inventor:

Lane W. Lee

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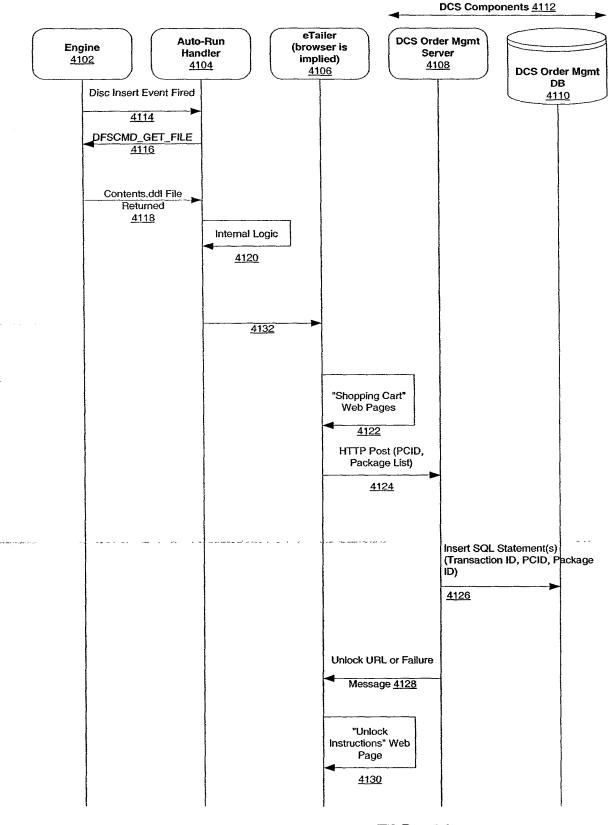


FIG. 41